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XXXIX. *An Account of a Suppression of Urine cured by a Puncture made in the Bladder through the Anus; being an Extract of a Letter from Dr. Robert Hamilton, Fellow of the Royal College of Physicians at Edinburgh, and Physician at King's-Lynn, in Norfolk, to Sir John Pringle, Bart. P. R. S.*

R. May 23, 1776. **I** WAS sent for on the 25th of March, 1774, to visit JAMES WILKINSON, of about thirty-one years of age, the son of a farrier in this town, who had laboured under a suppression of urine for three days.

The account this man gave of himself was, that he had been fourteen years a soldier in a regiment of foot, but had been discharged the preceding year as unfit for service, on account of this disorder, to which he had been long subject, and which was supposed to originate from a stone in the neck of his bladder; that, about twelve years before his discharge, he had contracted a *gonorrhœa*, which had been badly cured; that, from that period, he had become afflicted with frequent suppressions of urine, and that every return had been of longer duration than the former; that when the suppression had continued some time, he had been used to go to the Regimental Hospital, and to stay till it was removed; and that,

bleeding,

bleeding, purging, and the warm-bath had been the means used for his relief. He added, that the catheter could never be introduced into his bladder from the first attack; that the first signs of relief were a few involuntary drops of urine issuing from the *urethra*, after which followed a small thread-like stream, which continued to run until the bladder was a little more than half emptied; for he did not think that his urine had at any time been perfectly discharged, during the thirteen years he had been afflicted with this painful disorder. He concluded with telling me, that in other respects he had enjoyed good health; and that the present suppression had been brought on by hard riding on a journey he had undertaken to go express.

This man was in a very distressed condition. His bladder was distended to an enormous size, resembling the gravid *uterus* at that late period of gestation, when the *fundus* reaches above the navel; to such a degree was it dilated by the repeated suppressions of urine for so many years. His pulse was small and quick; he had been troubled with a hiccup for many hours, and had vomited every thing he had taken from the first day of his illness. His head and face were emphysematous from straining; and the cellular membrane was so much inflated, that he could not open his eye-lids. He was attended by two surgeons, who had used bleeding, opiates, clysters, fomentations, and the warm-bath, without any benefit; and they had repeatedly attempted to introduce catheters of different sizes, without success; that instrument, having passed without resistance to the neck

of the bladder, met there with an obstruction not to be overcome. Under such pressing circumstances no time was to be lost. The patient's life was in imminent danger, either from a rupture, or a gangrene of the bladder. The approach of the latter was soon to be apprehended, from the hiccup and smallness of the pulse. There was no alternative left; the bladder must be speedily emptied by an aperture somewhere, or the patient must perish. The surgeons, therefore, went to prepare their instruments for making an opening into the bladder. Reflecting, in their absence, on the most eligible method of performing the operation, I was in some degree of perplexity; for I did not much approve of any of the methods recommended by the best chirurgical writers; either that of making a perforation above the *os pubis*, in the place where the higher operation of lithotomy is performed; or that of the puncture *in perinaeo*. Whilst I was considering what was to be done, the mother of the patient told me, that she had several times that day attempted to give him a clyster, but had not been able to introduce the pipe, by reason of a large substance low in the gut near the fundament, which stopped up the passage. It immediately occurred to me, that the obstructing body could be no other than the distended bladder, which, having filled the *pelvis*, pressed downwards where there was the least resistance towards the *anus*, as well as upwards into the *abdomen*. From this circumstance I was led to think, of discharging the urine by a puncture into the bladder, with a trocar introduced by the *anus*. I conceived that this method would have advantages superior

to any other that I had heard of, for simplicity, ease, and safety. The finger could guide the point of the instrument to the very spot of the bladder to be pierced. The coats of the *intestinum rectum* and bladder, and the intervening cellular membrane, were all that were to be perforated, and they were now pressed so closely together, that there could be no more art required than in piercing any simple bag of water. When the surgeons returned, I told them what had occurred to me concerning the descent of the distended bladder (for I had not yet examined it) and its pressing the *rectum* downwards; I represented to them the hazard and difficulty attending the operation hitherto in use, and proposed this method of perforating the bladder with a trocar introduced by the *anus*. They readily acknowledged the advantage of such a practice, and agreed to give it the preference. We examined with a finger *in ano*, and felt a large round tumor, a very little way within the orifice, pressing the anterior side of the *rectum* downwards, and pushing the *anus* and *perineum* considerably outwards. The gut itself was loose and empty; and through its relaxed sides the tumor, which was evidently the bladder, was distinctly felt stretching every way, completely filling the *pelvis*, and feeling like the membranes which contain the waters of a woman in labour, thrust into the dilated *vagina*. I described the manner in which I thought the puncture should be made; and, as I imagined that I could better execute what I had myself conceived than another person, I offered to do it; which being readily assented to,

the operation was performed in the following manner. Having placed the patient on his back on a bed, with his breech projecting a little over the side of it towards the light, and his legs bent into the position they are placed in for the operation of lithotomy, and held by two assistants, a trocar of the middle size, with its point guarded by the extremity of the fore-finger well oiled, was introduced into the *anus*, until the tip of the finger reached the anterior part of the tumor; when the finger being a little withdrawn, and the point of the instrument brought into contact with the tumor, it was plunged into it, in a direction parallel to the axis of the bladder, in an erect posture; and the perforator being pulled out, the water immediately followed. A straight catheter was quickly introduced through the canula into the bladder, lest, as it collapsed and shrunk upwards as the water was discharged, the canula should prove too short, for its shell was then close to the *anus*. The canula was then slipped out of the aperture as far as the rings of the catheter, as being no longer of use, and the catheter remained in the bladder until the urine was all drawn off; during which time, that instrument was moved different ways, to search for the stone which was supposed originally to have occasioned the disorder; but none was to be found. The water being discharged, the catheter was taken out, and the patient put to bed. The parts were repeatedly fomented; and a draught, with half a drachm of nitre and 25 drops of laudanum were given, and two more of the same kind were ordered for the night.

26th, He had had a very good night, and had made water five or six times through the aperture made by the trocar. He said, that as soon as the bladder had collected a certain quantity of urine, he had felt an inclination to make water; that then sitting on a chamber-pot or bed-pan, and straining in the usual way, the urine had rushed out at the aperture *per anum* in a stream; and that none had passed by the *urethra*. Not contented with his account of the matter, I desired him to make water in my presence, and was witness to this curious and extraordinary power of retention of the urine in a wounded bladder, and of discharging it at pleasure through an artificial passage. The emphysematous swelling of his head and face was almost gone. He was directed to drink the pectoral decoction with the addition of some marsh-mallow root, sweetened with manna, and acidulated with orange or lemon-juice; and the nitrous opiate was repeated.

27th, He complained of a fulness of his belly, probably owing to his not having had a stool. He still made water through the trocar-aperture as before, and whenever he pleased; but now he began to perceive a little urine come by the *urethra* at the same time. We did not choose to order a clyster, lest the gut should be injured by the pipe, but to wait the effect of the manna, which, with the night-draught, was still continued. The resolution of the inflammation being now begun, as was conjectured by the urine finding its natural passage by the *urethra*, a bougie was introduced beyond the stricture at the neck of the bladder, and to very good purpose.

28th,

28th, He was much better, he had had some stools, and had passed most of his urine by the *urethra*.

30th, No water had issued through the aperture either this morning or the preceding day; the whole, though in a small stream, had flowed by the *urethra*. He complained of a soreness *in ano*.

31st, This day he felt that soreness only when he went to stool. The stream of urine by the *urethra* was still small.

April 6th, The puncture through the *rectum* and bladder appeared to be quite healed. The urine was discharged in a tolerable stream, the passage being, as he observed, much wider than it had been for thirteen years before.

He continued the daily use of the bougies; and, being sensible of the great benefit he had received from them, willingly persevered in their use, until the stricture was so much lessened, as to permit a free discharge of his water, and by these means he obtained a complete cure: for, in two months after, he left the town in every respect well. It was remarkable, that, during the progress of the cure, no urine was perceived to ooze involuntarily through the opening; but it was always retained until the patient, prompted by a fulness of the bladder, made his water, as has been related.

Having given as accurate an account of this case as I am able, I must now, SIR, in justice to myself, beg leave to assure you, that I had neither heard, nor read, of any method of perforating the bladder, similar to that which I have related, before you kindly informed me in your

last letter, that it was not a new operation; and that I should find an account of it in POUTEAU's *Melanges de Chirurgie*. I have procured the book, and have read the paper with great satisfaction, and am much obliged to you for your intelligence. I do not presume to claim any merit from a thing which took its rise from mere accident. The obstruction which the pipe met with when the patient's mother attempted to give him the clyster, suggested the method of piercing the bladder by the *anus*; and I am persuaded, that the same thought would have arisen, on a like occasion, in the mind of any thinking man. And I beg you would believe, that I have no small satisfaction in finding it occurred to M. FLURANT, the ingenious author of the paper on that subject, in that publication, from a circumstance, which, though not exactly similar, amounted nearly to the same thing. This surgeon having introduced his finger into the *anus*, to examine the state of the bladder, in order to perform the puncture *in perinaeo*, found it so round and tumid, and so much within the reach of his instrument, that he thought he could perforate it with safety in that place; and, from a little reflection on the structure of the parts, was convinced of the expediency of operating in this manner, in preference to any other.

Before I quit this subject, I think it proper to acquaint you, that I have found a composition of calomel and opium, in large doses, the best internal remedy for suppressions of urine, in general; and that I have repeatedly seen this medicine succeed after the usual means have failed. I am
convinced,

convinced, from these trials, that the principal or specific efficacy is in the calomel, as large doses of opium alone, or joined with camphire, have proved unsuccessful. I am so well satisfied of the advantages of this practice, that, if called early in the disorder, I direct ten grains of calomel with two grains of solid opium, made into a bolus with any conserve, to be taken immediately, and repeated in six hours. I have seldom occasion to order a third dose, the patient being generally relieved by the second, if the first has failed. I did not administer it in the case here related, because the alarming situation the patient was in when I came to him required the bladder to be emptied without delay.